


## Claims

1. A method for producing cyclic polyether compounds, comprising the cross-coupling reaction of alkylborane and cyclic ketene acetal phosphate in the presence of a basic aqueous solution using palladium [1,1'-bis(diphenylphosphino) ferrocene] chloride as a catalyst.

2. The method for producing cyclic polyether compounds of claim 1, wherein a starting material for alkylborane and a reagent used for producing alkylborane are added to the reaction system prior to the cross-coupling reaction, thereby producing the alkylborane *in situ*, which is then reacted with cyclic ketene acetal phosphate in the presence of a basic aqueous solution using palladium [1,1'-bis(diphenylphosphino) ferrocene] chloride as a catalyst

 3. The method for producing cyclic polyether compounds of claim 1 or 2, wherein the alkylborane is obtained by the hydroboration of *exo*-olefin with 9-BBN.

4. The method for producing cyclic polyether compounds of claims 1, 2 or 3, wherein the basic aqueous solution is an aqueous solution of  $\text{NaHCO}_3$ .

5. The method for producing cyclic polyether compounds of claims 1, 2, 3 or 4, wherein 1 to 2 equivalents of cyclic ketene acetal phosphate are added to 1 equivalent of alkylborane.

